# U.S. ENVIRONMENTAL PROTECTION AGENCY
# INITIAL POLLUTION REPORT

Date: May 21, 2009

Subject: Raritan Bay Slag Site
Old Bridge and Sayreville, Middlesex County, New Jersey

From: Andrew L. Confortini, OSC
U.S. EPA, Region II
Removal Action Branch

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POLREP NO. 1 (Initial) [3/9/09 – 5/20/09]

## 1. Introduction

### 1.1 Background

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|---|---|
| Site No.: | A205 |
| Contract No. | EP-W-04-055 |
| Delivery Order No.: | 073 |
| Response Authority: | CERCLA |
| CERCLIS No.: | NYN000206276 |
| NPL Status: | Non-NPL |
| Action Memo Status: | Verbal Authorization Granted: March 18, 2009 |
| Start Date: | 04/02/09 |
| Demobilization Date: | N/A |
| Completion Date: | N/A |

#### 1.1.1 Incident Category

CERCLA incident category: On-going release of heavy metals into adjacent soil, sand and water. This release has impacted, and continues to impact nearby beaches and shoreline and sediment within this portion of Raritan Bay. The affected areas are utilized by the public for recreational activities including fishing, boating and jogging.

**Site Description**

#### 1.1.2.1 Location

The Site is located in the Laurence Harbor section of Old Bridge and in Sayreville along the Raritan Bay. Based upon available analytical results, the overall site spans approximately 1.3 miles of the waterfront area between Margaret's Creek and the area just beyond the western jetty at the Cheesequake Creek Inlet. The portion of the Site that is situated in Laurence Harbor includes Margaret's Creek and the Old Bridge Waterfront Park. Margaret's Creek is open space consisting of wetland and upland areas. The upland area is reported to be filled with debris containing slag and battery carcasses. The park is made up of walking paths, a playground area, several public beaches, and three jetties, not including the two jetties at the Cheesequake Creek Inlet. The park waterfront is protected by a seawall, which is partially constructed with pieces of slag. The western jetty at the Cheesequake Creek Inlet in Sayreville and the adjoining waterfront area west of the jetty, contains slag as well. This property is privately owned and the former location of a popular restaurant. The slag was placed at both locations approximately 40 years ago. The seawall, jetties, beach area east of the Cheesequake Creek Inlet, and the western jetty at the Cheesequake Creek Inlet are popular fishing areas. The beaches east of the Cheesequake Creek Inlet and west of the seawall appear to be the most popular for swimming.

#### 1.1.2.2 Description of Threat

Elevated levels of lead, antimony, arsenic, and copper were identified by the NJDEP in the soil along the seawall in 2007. One area of concern identified during the sampling conducted by the NJDEP was at the edge of the beach near the western end of the seawall. Old Bridge Township placed a temporary "snow" fence in this area, posted "Keep-off" signs in the park along the split rail fence that borders the edge of the seawall, and notified the residents of Laurence Harbor.

On April 24, 2008, the United States Environmental Protection Agency (EPA), Removal Action Branch received a request from the New Jersey Department of Environmental Protection (NJDEP) to evaluate the Laurence Harbor Seawall for CERCLA removal action consideration. On November 3, 2008, DEP forwarded an amended request to include the northern jetty (hereafter referred to as the western jetty) at the Cheesequake Creek inlet in the overall scope. The site was renamed as Raritan Bay Slag (Site). Subsequently, the Site was expanded to include the Margaret's Creek property.

**Preliminary Removal Assessment/Removal Site Inspection Results**

EPA collected samples at the Site in September 2008 as part of an Integrated Assessment. The sampling included the collection of soil, sediment, water, biological, and waste samples along the seawall in Laurence Harbor, the western jetty at the Cheesequake Creek Inlet, the beaches situated near these two locations, and the developed portion of the park.

Analytical results generated by either EPA or NJDEP investigations indicate that significantly elevated levels of lead and other heavy metals are present in the soils, sediment, and surface water in and around both the seawall in Laurence Harbor and the western jetty at the Cheesequake Creek Inlet. Analytical results for surface soil samples collected near the seawall were as high as: 142,000 mg/kg for lead, 12,900 mg/kg for antimony, 3,350 mg/kg for arsenic, and 3,590 mg/kg for copper. Four surface soil samples collected on the western jetty at the Cheesequake Creek Inlet ranged in lead concentration from 54,800 mg/kg to 198,000 mg/kg. The maximum concentrations of antimony, arsenic, and copper detected on the western jetty at the Cheesequake Creek Inlet were 3,120 mg/kg, 2,470 mg/kg, and 4,630 mg/kg, respectively. Nine of 13 soil

samples collected in and around the seawall and the western jetty at the Cheesequake Creek Inlet exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/L). The TCLP results for the soil from the western jetty exceeded the limit by approximately 100 to 250 times.

Elevated levels of lead were also identified at several surface water locations on the first beach between the western end of the seawall and the first jetty in Old Bridge Waterfront Park. The average lead concentration of the four highest detections at this location was 1,365 ug/L, with a maximum lead concentration of 1,630 ug/L. Three activity-based water samples collected from the beach area situated between the western end of the seawall and the first jetty had an average total lead concentration of 1,179 ug/L, with a maximum total lead concentration of 1,450 ug/L.

At the request of EPA, the New Jersey Department of Health and Senior Services, in cooperation with the Agency for Toxic Substances and Disease Registry, evaluated the analytical data generated from the samples collected at the Site. It was concluded that due to the elevated lead levels a Public Health Hazard exists at the seawall in Laurence Harbor, the beach between the western end of the seawall and the first jetty, and the western jetty at the Cheesequake Creek Inlet (including the waterfront are immediately west of the inlet).

## 2. Current Activities

### Operations

#### 2.1.1 Narrative

Based on the available data, a CERCLA removal action is warranted at the Site. The following immediate actions have been taken:

**Reporting Period: April 18, 2009 through May 20, 2009:**

Sayreville Portion:

: On April 24, 2009, a geophysical investigation was conducted within the Old Bridge Waterfront Park area;
: During the week of April 27, 2009, an underwater sonar evaluation was conducted within Cheesequake Creek Inlet. The evaluation was followed up by dive operations within the inlet.
: Installation of security fencing limiting access to the known areas of contamination was completed on May 1, 2009;

Old Bridge Portion:

: During the week of April 13, 2009, a second sampling event was conducted along the Old Bridge beaches.
: On May 15, 2009 fence installation along the affected Old Bridge locations began.

: Fence and signage installation continued during the week of May 18, 2009.

**Reporting Period: March 9, 2009 through April 17, 2009:**

During the reporting period, the following activities were completed in association with both the Sayreville and Old Bridge properties:

: On March 11, 2009, EPA and ATSDR met with elected officials of Old Bridge and

Sayreville to present and discuss the sampling results.
: On April 1, 2009, EPA met with members of the Old Bridge Environmental Commission and approximately 100 residents to discuss the findings of the sampling results and the Health Consultation prepared by the U.S. Department of Health and Human Services.
: On April 2, 2009, EPA contractors installed a temporary snow fence and warning signs along the beach and seawall at the Old Bridge Waterfront Park.
: On April 7, 2009, EPA conducted a similar meeting with members of the Sayreville Environmental Commission.
: On April 9, 2009, EPA met with elected officials of Old Bridge at the Old Bridge Waterfront Park to discuss fencing options.

#### 2.1.2 Removal Actions to Date

This is the first removal action being taken to prevent direct contact with contaminated sand, water and slag.

#### 2.1.3 Enforcement Activities

Enforcement actions are being conducted by the Office of Regional Counsel (ORC) to identify responsible parties (RP) and evaluate their liability.

## Planning

#### 2.2.1 Anticipated Activities

##### 2.2.1.1 Planned Removal Actions

The scope of current removal activities involves installation of permanent fencing and warning signs.

##### 2.2.1.2 Next Steps

Permanent fencing and warning signs will be placed around areas that were found to contain elevated levels of lead and other heavy metals. These areas will include the Old Bridge Waterfront Park seawall, Margaret's Creek and along a portion of the property bordering Route 35.

#### 2.2.2 Key Issues

Key issues at this time involve developing a comprehensive public outreach program, scheduling a public meeting, coordination with state and local government entities and local business owners.

## 2.3 Finance

#### 2.3.1 Narrative

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

### 2.3.2 Metrics

| REMOVAL | Current Budget | Cost to Date | Remaining Costs |
|---|---|---|---|
| ERRS | | $140,000 | |
| RST 2 | | 0 | |
| EPA | | $2,000 | |
| OTHER EXTRAMURAL | | 0 | |
| PROJECT CEILING | $325,000* | | |
| TOTAL | | $140,000 | |
| PROJECT BALANCE | | | $185,000* |

*Indicates Mitigation Ceiling.

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